



Forestory

Volume 11, Issue 1, Spring, 2020

Contents

Chair's Message/AGM Report...	3
Working in the Algoma Woods at the Turn of the Twentieth Century	4
Byng Inlet's Log Boom Raft Rings: Recording History	8
Returning the Canadian Sweet Chestnut to the Forests of Ontario	14
Red Squirrels Know	16
Frontier College in the Logging Camps of Ontario 1900-1970 ...	17
Ontario Tree Seed Plant Update	24
Chapter 1 – History – From Private Land Forests, A Public Resource, Ontario Ministry of Natural Resources, 1982	26
Publications Related to Ontario Private Land Forests	36
Book Review: <i>Into the Woods: My Life in Forestry</i>	42
Book Review: <i>Addendum to Pinus Strobus</i>	43
Sylva Recap	44
Renewing Nature's Wealth	46

Ten Years of FHSO



(top) Attendees at the first Forest History Society of Ontario Annual General Meeting in 2010.

(bottom) Attendees at the most recent AGM, February 13, 2020.

Board of Directors

Chair

Rob Galloway, R.P.F.

Vice-Chair

Dave Lemkay

Past Chair

Mark Kuhlberg, PhD

Secretary-Treasurer

Ruth Hall, Forests Ontario

Members

Ken Armson, O.C., R.P.F. (Ret.)

Fraser Dunn

Tom Griffiths, R.P.F.

Malcolm Squires

Dolf Wynia

Journal Editor

Caroline Mach, R.P.F.

Webmaster

Sherry Hambly



Member, Ontario Historical Society
www.ontariohistoricalsociety.ca/en/

Contact Information

Forest History Society of Ontario
144 Front Street West, Suite 700
Toronto, ON M5J 2L7

416-493-4565 or 800-387-0790
Fax: 416-493-4608

Web Site: www.ontarioforesthhistory.ca

Facebook Site: www.facebook.com/forest.history.society.of.ontario

General Email Address: info@ontarioforesthhistory.ca

Journal Editor Caroline Mach, R.P.F.; carolinemach@hotmail.com

Webmaster Sherry Hambly; fhsowm@bell.net

Request for Content

Do you have an interesting story to tell about some aspect of forest history in Ontario? Or are you prepared to write an article for the newsletter on some aspect of forest history? Do you know of interesting photographs, documents, web sites or other items that would be suitable for inclusion in the newsletter? If so, please contact the editor to discuss the possibility of publishing your information in the newsletter.

Please provide your comments to the editor on items or themes you would like to see in the newsletter.

Copyright and Use Permissions

It is the author's responsibility to ensure that copyright ownership is acknowledged and appropriate use permissions have been obtained and are acknowledged for all materials published in this document.

Reprint Permission

Requests to use material published in *Forestory* should be directed to the Editor at carolinemach@hotmail.com.

Chair's Message & AGM Report

By: Rob Galloway, R.P.F. (Ret.)

Well, we have had a very different spring since our Annual General Meeting. We had heard about it being declared a world Disease of Concern and renamed Covid 19 on February 11. Then, on March 11, 2020, it was declared a pandemic. Back from Florida on March 17 and 14 days in isolation. A different view of the world and I wish I could be in the forest. As we are still staying home (not working perhaps) part of our forest industry is making masks and paper for masks in an all-out race to help the battle against Covid 19 for all of our people and our future. A very different time and a very philosophical time to think.

The tour organized by Terry Schwan and team was a great success; the **80th Anniversary Forestry Tour of Northumberland and Durham Counties: The Rewards of Planting Trees.**

The team has a proposal to try and do an annual tour of a historical area and your Board agreed to work towards that goal.

One key discussion that we had at the AGM was how we grow forward. Some key points and possibilities were brought up that I wish to highlight:

- Potentially attend the Ontario Woodlot Association AGM to spread awareness
- Find a volunteer in the south to help us build. **Any volunteers??**

(Continued on page 7)

By: Rob Galloway, R.P.F. (Ret.)

Forest History Society of Ontario Annual General Meeting Nottawasaga Inn, Alliston Thursday, February 13th, 2020

We had a good AGM in February attended by about 40 people. Some interesting topics were discussed.

- Reaffirmed the following Directors: Rob Galloway, Chairman; Dave Lemkay, Vice-Chair; Malcolm Squires, Director; Dolf Wynia, Director; Fraser Dunn, Director; Mark Khulberg, Past Chair
- Election of new Directors: Paul Kallioinen, James Farrell, Faye Johnson
- Election of Ruth Hall, Secretary/Treasurer
- Potentially attend Woodlot Association's annual meeting to spread awareness of FHSO.
- Find a volunteer in the south to help build awareness/membership.
- Have a booth and representatives at CIF conferences. The CIF topic was well received. Good feedback. Looking to do the same in the Sault. Make this an ongoing thing to raise awareness. Agreed by all if CIF is in Ontario.
- Form a focus task team to actively pursue some ways and means to build membership/awareness.
- Fraser asked for feedback from Members and the Board on how we can grow forward. All ideas appreciated.

So now you have an idea of what we feel. Feel free to join us next year and ask your friends and acquaintances to join FHSO. **We are trying to grow like those forests we love.**

Working in the Algoma Woods at the Turn of the Twentieth Century

By: Andrew Gregory



Sidney Lee GREGORY as a 12-year-old gypsy boy at the time Barnardo's took him on in 1888.

Family history is a peculiar blend of fact and opinion. It's not that the family historian is any less rigorous in the pursuit of truth than colleagues in other branches of historical research. Nor could one say that an interest in motive, or the desire to explain behaviour in terms of inherited characteristics, is unique to genealogy. But the family historian does have an additional burden to bear, and that lies in the desire to find plausible explanations for the actions of otherwise insignificant individuals.

This is the story of my grandfather, Sidney Lee GREGORY, focussing on the time he spent in Canada – a fifteen-year spell between 1888 and 1903.

Sidney was born in England in 1875, the penultimate child of a clutch of ten, and a member of a Romany gypsy community who haunted an annual circuit which took in parts of the Thames south of London during the summer months, and which overwintered in the village of Eversley in Hampshire. They lived in a bender tent, a collapsible dome-shaped structure covered by a tarpaulin and with a frame of flexible *withies* of hazel or willow. Apart from overwintering they wouldn't stay anywhere longer than a few days. They supported

themselves by selling the products of their country crafts – as willow weavers, bee-hive makers, or broom squires; by offering themselves for casual agricultural work; and by a *spot of honest pilfering*.

It is worthwhile noting that Eversley, their overwintering site, had a very famous vicar – none less than Charles Kingsley, the prominent Victorian social reformer and prolific author. His book *The Water Babies* was an attack on the use of child labour endemic to the period, and *Westward Ho!* devoted two chapters to the joys of smoking tobacco. This latter is something he would have shared with his beloved gypsies, who camped within a few hundred yards of the parish church. Kingsley, himself, baptized my grandfather's brother, Solomon, and the tribe became known as Kingsley's gypsies¹.

Sidney's father died, and his mother found that the effort of supporting the family was overwhelming her. The boy voluntarily attended the Sunday School in Eversley and, there, came to the attention of Miss Isabella Chester, a retired colonial from the British Raj in India, part of the burgeoning Empire. She clearly recognized some potential in Sidney and recommended him to Thomas Barnardo, offering £16 a year for his upkeep. This was a large monetary sum in 1888 and would be equivalent to in excess of \$2,000 today. Barnardo ran a Christian organisation which picked up waifs and strays, ostensibly



Sidney just one month after the above photo was taken, looking better-fed and much smarter, just prior to his departure for Canada.

(Continued on page 5)

(Continued from page 4)

orphans, from city streets and offered them accommodation, food, basic education and training for employment. He wasn't normally interested in gypsies, but Miss Chester's money probably brought him round to the idea. The fittest and healthiest of Barnardo's children were added to the headlong rush in the 1880s to the emerging parts of the Empire where it was felt they would have a better life chance, rather than remaining as *gutter snipes* in Britain². Over a 40-year period, Barnardo delivered 100,000 adolescents, children and babies to their promised lands. Sidney was 12 years old.

Sidney had never seen the sea, nor travelled in a train. Both deficiencies were rectified in May 1888 as he made his way to the port of Liverpool in the north of England. He was in a party of 160 boys sent to rendezvous with a steamer of the Allen line, the *SS Sarmatian*, which was sailing to Quebec. By some chance this particular ship, one of so many crossing to Canada, had been chosen to carry a very important passenger.

The newly-appointed viceroy of Canada, Lord Stanley of Preston, was making the same journey and this excited a great deal of press interest, which was to provide eye-witness accounts of Sidney's voyage³. Canadian readers will know that Lord Stanley went on to develop a great interest in ice hockey and inaugurated the famous Stanley Cup competition which is fiercely contested to this day.

Thomas Barnardo was a meticulous documenter. In spite of the vast numbers of children with whom he dealt, his organisation wrote a social history of the extended family, took photographs, and arranged for the child to be visited at least annually. Sidney Gregory, of course, was nobody. In the ordinary course of events all that would be known about him would be confined to records of birth, marriage and death. But Barnardo's accounts offer regular glimpses into the boy's whereabouts, his demeanour and his well-being. And Sidney's penchant for being near important people, and in important places, albeit as a nobody, opens yet more windows on what was happening to him.

On arrival in Quebec, Sidney and his party travelled by train to Toronto where Barnardo had a reception house for boys. It was from here that the Home Children were assigned to whomever had put in a bid for them. In Sidney's case he very quickly found himself working on the farm of James Elliott in Midland, Ontario, on the southern shore of Georgian Bay. In their regular reports Barnardo's noted that the boy had a wandering habit and that it was difficult to keep tabs on him. Very quickly Sidney had moved on to the farm of James' brother, George Elliott, and then through two more farmers before appearing at Henry Copeland's sawmill in Wyebridge in 1891. The boy had now become a young man of 16 years, and the next we hear of him is that he had relocated to the northern shore of Georgian Bay and was working in the woods alongside the Spanish River. Here the forest was dense and the terrain rough, so Barnardo's agents found it difficult, *in extremis*, to locate him. They did their best, but accounts during this period tended to be third-hand descriptions. It seems that what happens in the woods, stays in the woods.

The next verifiable event in Sidney's life was when he appeared in San Francisco in 1904, where he had joined the US Navy and was working as a boilermaker in the shipyards of the Union Iron Works. But this leaves a decade unaccounted for.

Life in the lumber shanties was tough⁴, with men living communally in rough accommodation during the harsh Canadian winter. But not much tougher than life as a gypsy, and Sidney would probably have thrived in these conditions, having lived in this way for most of his life. Nevertheless, the dangers from falling trees, and from logs freed from jams in raging rivers are well-documented. Barnardo's accounts offer only a few clues to this period in Sidney's life...

(Continued on page 6)

29/12/1894 Mr Griffiths reports that lad went to Spanish River to work in the lumber shanties in the winter of 1892 – was reported killed by a tree that winter but this was afterwards contradicted, as he was seen by a neighbour from Victoria Harbor, who had worked in the woods. The lad worked for William Taylor, Wyebridge, 3 months before he went to the forest.

27/11/1895 Letter received today from Gregory for George McGreay, Toronto (addressed to his loving brother) in which the writer states he is now working in the woods at Dunn's Camp, Spanish Station, Algoma – he will work in the sawmill next Spring.

The key to all of this lies in that postal forwarding address. Concerted attempts to establish the location of Dunn's Camp have, unfortunately, proved to be fruitless. There was a shingle mill in Algoma owned by a man called Dunn, and there is a town between Sudbury and Sault Ste Marie called Dunns Valley. Occam's Razor would urge the adoption of a simple explanation of this type but, being a family historian and eager to square the circle, the author is rather more attracted to a theory which attempts to explain all that is known of Sidney.

At the turn of the twentieth century, the industrial face of Sault Ste Marie, the city where Lakes Superior and Huron are linked, was moulded largely by the efforts of one man, Francis H. Clergue. He helped to establish a hydro-electric dam in the city, built wood pulping mills for paper manufacture, and created the steel works on which The Soo still depends. Clergue quickly realised that he needed to build infrastructure throughout the Algoma region to support his transport requirements for iron ore, wood and chemicals. To that end he began to finance the building of two railroads. The Algoma Central Railway connected Sault Ste Marie with Hearst and was designed to carry iron ore and wood from very remote areas (and still carries the famous Agawa Canyon tour train), whilst the Algoma Eastern Railway connected Sudbury with Little Current on Manitoulin Island⁵.

There exists a wonderful description of working life in a railway construction camp which can be found very easily by searching www.archive.org⁶. It relates to Dan Dunn's camp which was engaged in building the Canadian Pacific Railway in the Kootenay district of British Columbia during the early 1890s, but the sketch has a breath-taking clarity with regard to camp life and the nature of this work.

Railway construction required lumberjacks to clear a route through the forest, and the resulting timber was employed as railroad ties (known as sleepers in Britain). The rails themselves would be manufactured at Clergue's own steel works.

In 1903, at the height of his powers, Clergue's ambition suddenly outstripped his financial resources and he was bankrupted. Unable to pay his many workers, a mob descended on Sault Ste Marie in protest. Its dispersal required that troops be drafted in from Toronto.

If Sidney had been involved in this turn of events then he may well have returned to Midland in order to work in the shipyard there before moving on to San Francisco to find employment.

Given the paucity of direct evidence available for Sidney Gregory's time in the woods, the notion of working in railway-building is made plausible in that it would have provided not only the training for the skills he would later need in San Francisco, but also a reason for having to go there.

At the very least, this story offers a clear indication of the dangers faced by all timber workers, and how closely tied their livelihoods were to the fortunes of the men who called the shots in the woods

(Continued on page 7)

(Continued from page 6)

of Algoma.

Ultimately, it was the First World War which called Sidney back to Britain in 1917 and provided him with the means to do so. He married and had a family. Even so, he made several attempts to get Barnardo's or the army to return him to Canada where he felt his prospects would be better. They all failed.

As time passed, Sidney reverted to form and became a gypsy once more, travelling the routes of his childhood until his death in 1952. A sad ending to a life which had been enriched by his experiences in Canada and the USA. Many of the Home Children experienced abuse and deprivation. Many were reviled in society, and carried the shame into old age⁷. But, for Sidney, these were probably the best years of his life.

¹ Journal of the Gypsy Lore Society 3rd Series Volume 22 Page 119 VI – Kingsley's gypsies by E O Winstedt

² <https://www.barnardos.org.uk/who-we-are/our-history>

³ The Preston Herald Saturday 02 June 1888

⁴ **The Lumberjacks** by Donald MacKay (2007) Natural Heritage Books, Dundurn Group, Toronto

⁵ http://www.biographi.ca/en/bio/clergue_francis_hector_16E.html

⁶ Chapter IX "Dan Dunn's Outfit" *On Canada's frontier; sketches of history, sport, and adventure and of the Indians, missionaries, fur-traders, and newer settlers of western Canada* by Julian Ralph (1892)

⁷ <https://www.britishhomechildren.com/canadian-bhc>

(Continued from page 3)

- Ensure we attend CIF meetings in Ontario and have a booth there.
- Form a Focus Team to move us forward. Fraser Dunn will lead this for us.
- **And our very special time was the honouring of Ken Armson for his time with FHSO.**
 - a. We had a ceremony for Ken and presented him with an appropriate forest history type award. (Thanks Dave Lemkay)***
 - b. A wonderful recognition of Ken's work to get the FHSO up and going and to all his commitment and being part of Ontario's Forest***

Thanks again to all of those sharing in this edition and please continue to share your stories in the future.

Enjoy this edition of our *Forestory*, and share it with others far and wide and if you have any ideas for potential stories or items you would like to bring forward please let us know.

Byng Inlet's Log Boom Raft Rings Recording History

**By: Fred Holmes
with technical assistance
from blacksmith Terry Sheridan**



When history disappears, a piece of our memory disappears.

We were drawn to the lumbering history of Ontario's Georgian Bay while boating through her eastern and north shores. Remnants in the form of surviving pilings, crib works, raft rings and tug boilers teased us as to what once was there, and our imaginations wondered about the industry and people who populated each area. Shoreline bookstores provided local history books written by people who cared about their past and at every dock that we spent the night, people shared stories of their gunkholing findings.

Our undersized light boat was replaced with a cottage on Byng Inlet's north channel and presented an opportunity to explore both its lumbering history and its shorelines. Lumbering and sawmills as an industry dated from 1868 through 1927.

Out from the cottage is a rock shoal that we swim to with a lumber era eyebolt and ring, both being 1 ½ inch diameter in thickness. As we kayaked, we saw more eye bolts and rings, including some where people had used an acetylene torch to cut and remove the ring. A 1922 aerial photograph of Byng Inlet's sawmills showed large rafts connected to shore, each containing hundreds of logs. We kayaked around the areas shown in the photograph and were surprised that in one long stretch, no raft rings could be seen.

A cold chill went down my spine as I contemplated a future where many of these rings would be removed by treasure seekers. It was time to get a snapshot of the past by documenting these raft rings, which were 100-150 years old in a country just 152 years old.

(Continued on page 9)

(Continued from page 8)



Over the course of several years, area resident Richard deJong and I hunted down the raft rings, initially within Byng Inlet itself, and more recently the outer areas between the south channel entrance and the Gereaux Island lighthouse.

In total, we documented 56 raft rings and their eye bolts or anchor posts. Each ring and anchor was weighed, dimensions recorded, photographed and GPS coordinates noted. Our measurements were imperial measure reflecting the system of the day. Equipment wasn't scientific but rudimentary; a fish scale, a tape measure, Garmin 76 GPS. The full recordings were released to the West Parry Sound District Museum in December 2019.

The search and recording were challenging at times. The complete shoreline and shoals were solid rock and our boat was aluminum, so wind, waves and boat wakes were major obstacles. The high water of 2019 put many raft rings at, or under, water, but fortunately most had been captured by us in earlier years. Temperature was also a factor and most of the search was conducted in August and early September when the water was warm.

Being retired in Collingwood has many advantages, one being getting to know local blacksmith Terry Sheridan, introduced to me by his cousin. I've spent a number of hours with Terry learning about what the lumber era blacksmiths did to produce the rings, eye bolts and anchor posts. Terry even made samples for me as I stood beside his forge. I had Terry review the photos of all 56 findings with a request to critique the blacksmiths' work.

The two styles of wrought iron used by the blacksmiths were stock rods called merchant bars and flat iron. Stock rods were standard imperial sizes which we found to be mostly 1 ¼ inch to 1 ½ inch diameter for the rings and up to 2 inches for the anchors. The flat iron was mostly 2-4 inches wide by ½ inch in thickness and commonly matched with 1 ½ inch to 2 inch diameter merchant bars as anchor posts.

(Continued on page 10)

(Continued from page 9)



This broken raft anchor excited Terry the most because the grain in the break is clearly visible, grain being a characteristic of wrought iron. The grain contains silica, a component that helps retard the raft anchor from rusting. Silica is a by-product in producing wrought iron. This particular raft anchor is around 120 years old.



By contrast, this broken raft eye bolt more likely broke because of the freeze/thaw cycle which is active within the grain of the wrought iron. Being on the water's edge made this raft ring susceptible to our Canadian winters.

(Continued on page 11)

(Continued from page 10)



This raft anchor is a repurposed factory-made axle. The hole on top meant it was formed on a lathe. Back in the sawmill era, recycling was a necessity as just-in-time deliveries were in the weeks and months before the railway came to the community in 1908. The collar around the post was flat iron, and most of those identified had a width of 2 inches, the same width as would be applied around a wooden wagon wheel. This ring was removed by acetylene torch.



This is wire rope used for winching or for chairlifts. If the 'rope' was being used to hoist objects, the wire strands of the smaller rope would be perpendicular to give strength and flexibility. Scraps of wire rope were found attached to some of the raft rings but in the outer islands Richard and I found a large quantity looped up and abandoned, probably by a Graves, Bigwood & Co. tug a hundred years ago.

The wire rope would have been connected to a boom made of connected logs encircling floating logs.

(Continued on page 12)

(Continued from page 11)



The 56 lumber raft rings could be grouped into two specific designs with a few exceptions. This photograph is an example of one of those exceptions. The blacksmith's technique was to make a guide hole of about a pencil lead in diameter in a heated piece of wrought iron. He would then hammer and heat and hammer out the shape. Terry's rhyme to me was *mass in equals mass out*, in other words, the mass of iron you start with is the mass you end with, but obviously in a different shape. The raft ring above reflected a style used in a ship's rigging and the mode of transport of lumber leaving the Inlet was typically schooner, even into the 1920s.

Terry introduced me to new terms such as *scarf weld* and *forge weld* which are blacksmith techniques to join two ends, the former, obvious in ring making by either a telltale thick spot or an overlap mark and the latter, giving a stem to an eye bolt. Additionally, he noted, *upset* was the technique of working the anchor post top into a cap to prevent the collar holding the ring from being slid off as seen in the first two photographs.



In the ring at left, at three o'clock is a mark across the ring. This is the end of a scarf weld which is the hammering of two ends of the ring that were first hammered into two 45-degree angled ends and then matched, heated, and hammered into a continuous ring.

(Continued on page 13)



This last photograph is an example of a forge weld whereby the two ends of a merchant bar have been bent under heat and hammer to form an eyelet; this one being called a deep forge weld because the joint is so deep into the hole.

Parry Sound's John Macfie told me some years ago about how the holes were drilled. It was a two-man job, one with a sledgehammer, the other held a rock drill bit. As John said, these two men had better like each other as every hole was hand drilled by brute strength and a good eye. John was unable to estimate just how long drilling a six or eight-inch-deep hole took. One man would hold the drill bit and the other, called a jack, would hammer, which would lead to the modern term, *jack hammer*.

While Richard and I collected the obvious, Terry opened my eyes to the blacksmithing techniques to the degree that I now look deeper and longer at each of the 56 photos, often seeing something more complex each time I look.

When you go out along the Georgian Bay shore in your area, take a look, pause, and study Canadian history that is up to 150 years old. Better still, photograph and GPS it. You are recording history.

We want to hear from you!

If you have articles, photographs or images, interesting facts, web links, personal reflections or events that would be suitable for this newsletter, please contact Caroline Mach, R.P.F. at carolinemach@hotmail.com. Deadlines are April 1 and October 1.

Returning the Canadian Sweet Chestnut to the Forests of Ontario

By: Dolf Wynia (5T7)

In 1924, Professor Sherwood Fox of Western University, who was well known force in Conservation in Ontario, noted that he knew of only one seed-bearing sweet chestnut tree that was left in Southern Ontario after the devastation by the chestnut blight (*Cryphonectria parasitica*). A few scattered individual trees were fortunately left in the 1980s and several even got to seed-bearing age. Separation was usually their best protection. Some also survived as recurring sucker sprouts for many years.

In 1998, Dr. Colin McKeen, a retired federal government plant pathologist who grew up near Strathroy, where he had many memories of chestnuts, decided he wanted to do something about the terrible void in our Southern Ontario forests, not only because of the value of the species for lumber and nuts, but particularly for its ecological role in our forests.

After considerable travel and discussions Dr. McKeen started the Canadian Chestnut Council (CCC). Amongst the charter directors were Dr. McKeen, Dr. John Ambrose, Doug Campbell, John Gartshore and Dr. Ernie Kerr. One of the longest serving directors was a Norfolk County farmer, Mike Nemerowski, who always came up with solutions when there were practical challenges. Many conservationists have since taken a tour of duty on the council and the activities have grown exponentially. In the United States, the American Chestnut Foundation is fulfilling a parallel role and has initiated research and trials on a large scale. Plant pathology staff at Guelph University, led by Dr. Greg Boland, a plant pathology professor, have played a critical role in the development of the program in Ontario, which has been supported largely by Trillium grants and private contributions of money and testing sites and recently some funding from the Ontario Endangered Species Act, The Toronto Dominion Bank Friends of the Environment, and the Tim Horton Children's Foundation.

The primary objective in Ontario is developing blight resistant trees and maintaining the natural diversity of the species across its natural range.

Early research focussed on "hypovirulence" which involved infecting blight infections with a soil borne virus that would neutralize the tree infection. This worked in some cases on some trees, but it appeared that several viruses were needed as some blight infections were resistant to some of the viruses. Several trees did outgrow their infections at least temporarily, but results were not consistent. Hypovirulence has been used somewhat successfully in Europe to control the blight in commercial chestnut groves.

Results from genetic research in the US suggest that several genes are responsible for resistance/susceptibility, thus making the inserting of a single gene unlikely to be successful for more than one generation. A few years ago, the transplantation of a wheat gene into a chestnut proved to result in resistance in one clone of the species but this direction of study is still confined to the laboratory at the State University of New York's College of Environmental Science and Forestry in Syracuse, N.Y.

Early breeding work in Ontario was headed up by Dr. Adam Dale, an experienced plant breeder at the Simcoe Research Station of the University of Guelph. Starting in about 2001, a total of 20 widely distributed and previously scouted and examined flower-producing Ontario trees were pollinated with pollen of partially resistant trees in the collection of Dr. Sandra Anagnostakis, who was doing parallel

(Continued on page 15)

research in Connecticut. This was repeated in 2002. Scions of the “mother trees” were also grafted on nursery grown seedlings to preserve the genetics for future reference and possibly further propagation. This also made having to climb up into the crown of the mother reference trees unnecessary.

By 2007 the 767 seedlings that had grown from the initial breeding were large enough to start testing for resistance. There were also 643 trees which were entirely Canadian crossings. The out-plantings are at the Onondaga Farms property of the Tim Horton Foundation near St. George and Riverbend Farms near Calton. The second stage of the project, started in 2007, and completed in 2013, was to infect these saplings with the blight and study their resistance. This involved infecting a branch of each tree for two consecutive years with two isolates of the fungus and studying the progression of the infection. The fungus isolates with different virulence were isolated by Dr. Greg Boland from Ontario trees. From this study, trees with smaller blight lesions for two consecutive years were selected for further breeding in the second generation. The second breeding generation, started in 2010, were intercrosses among genotypes from the first generation. From this generation, members and volunteers of the Canadian Chestnut Council planted out over 17 000 chestnut trees at three research plot locations. The trunk inoculations of this generation, with the same blight isolates started in 2016. In the summer of 2019, five trees that showed promise were selected and the first crosses of the third generation were made.

It turned out that the selected all-Canadian trees seemed to be resistant at the same level as the American hybrids. This led to the development of a pure Ontario native sweet chestnut breeding line within the CCC breeding program.

Since 2009, 11 trees have been producing flowers that have again been pollinated with selected pollen to further develop a new generation that again is a step more resistant. Hopefully by 2021 there will be seed available for testing from the third generation of controlled breeding. Research is also going on in micro propagation so that if and when resistant strains are developed, they can be distributed reasonably fast.



It will take many generations before there will be anything like this again: Dr. J.H. White, the first graduate forester at the University of Toronto standing in front of a Canadian sweet chestnut tree at St. Williams, Ontario.

In the course of developing the production techniques for new generations of trees, Dr. Galic has developed methodology that involves grafting small diameter scions on germinating chestnuts, thereby reducing space and time requirements in the early stages of the production of new crosses.

In the meantime a few plantings of surplus seedlings of the latest generation have been made in selected locations adjacent to currently isolated remnants of original stands to hopefully observe the possible naturally developing resistance in the offspring.

Readers may be interested in supporting the efforts of the Council by joining it and supporting it and possibly volunteering in some of the work. The website is: www.canadianchestnutcouncil.ca.

In preparing this story, the advice and assistance of Dr. Dragan Galic of the University of Guelph in Simcoe and Canadian Chestnut Council President Ron Casier is greatly appreciated.

Red Squirrels Know

By: Paul Leet Aird

I once rented an old stone house with a sun porch overlooking a flower garden, a fence, a hay field, and the Ottawa River. Tall trees grew along the fence line.

While eating breakfast on the porch on a sunny day in March, I watched a red squirrel run down a sugar maple tree to its lowest branch, which curved up. The squirrel then ran a short distance up the branch on its upper side, turned to its lower side, and while upside-down it cut a groove downwards and through the bark, which exposed the wood. Then the squirrel cut another groove beside the first, turned, and ran up the tree. The two grooves were about as long as my hand, as wide as a finger, and three fingers apart.

As I continued my breakfast, I wondered how to interpret what I had observed. I had seen a squirrel who definitely had a purpose. I was baffled by what I had seen – why had the squirrel chosen to run so far just to cut grooves, why did it cut them on the underside of the branch, and why did it cut two grooves?

About twenty minutes later, the squirrel surprised me. It ran down the tree and up the same branch. It stopped when it reached the bottom of one groove. Sweet maple sap was oozing out the groove, and my red squirrel began lapping it up. Slurp Slurp Slurp Chirp Chirp Chirp Slurp Slurp Slurp.

This was a grand day. I learned that a red squirrel knows how to select and tap a maple tree to drink its sweet sap, or to slake its thirst. It was a new and fascinating revelation about red squirrel behaviour.

Chirp Chirp Chirp

Paul Leet Aird is Professor Emeritus, Faculty of Forestry, University of Toronto, Canada, and author of *Loon Laughter, Ecological Fables and Nature Tales*.

Frontier College in the Logging Camps of Ontario 1900-1970

By: Frederick Keenan, PhD, PEng

The 21-year-old student, already starting to go bald but brimming with self-confidence, arrived in the fall of 1911 at the “Pinage Lake”¹ camp of the Victoria Harbour Lumber Company² near Whitefish, southwest of Sudbury. The young man was Henry Norman Bethune, later to become Dr. Norman Bethune, the most revered Canadian to a billion and a half Chinese³.

Bethune, then a second-year medical student at the University of Toronto, had signed on to be an instructor (or “labourer-teacher”) for the Reading Camp Association, later (in 1918) to be renamed Frontier College. He brought with him letters of introduction and two boxes of books and magazines. A few weeks after his arrival, Bethune wrote: “I formally took possession on the 19th day of October [1911] and declared the building open that night. The next seven days were spent in laying in a supply of wood, plastering and arranging the comforts of an effete civilization in conformity with the mission-style furnishing of my bungalow.”

According to Frontier College⁴:

He worked as an axe-man and sometimes tended the cable that brought huge logs up a steep hill. It was hard work and he reported blisters and a sore back but was very happy to be there. By the end of December he reported that his classes with the workers were proceeding to his satisfaction. The workers who attended Bethune’s classes included some English and Scottish workers who appreciated the books and magazines and the phonograph...He did his best with about a dozen new Canadian workers who did not speak English and asked the College for materials to be sent to him in French, Ukrainian and other languages. He also set the broken tibia of a Polish worker who had been injured.



A self-confident Norman Bethune (later *Dr. Norman Bethune*), fourth from left, at G. Martin’s “Pinage Lake” camp of John Waldie’s Victoria Harbour Lumber Company, near Whitefish, Ontario. On February 16, 1912, the founder of Frontier College, Alfred Fitzpatrick (third from the right), visited him and took a photographer along, which resulted in this iconic photograph. (Photo courtesy Frontier College)

(Continued on page 18)

Kathryn Salisbury, in an undated work in progress at OISE/University of Toronto, wrote this about Bethune at the camp:

His task will be to work side by side with the labourers of the lumber camp for 10 hours a day, 6 days a week and to provide 1-2 hours of schooling each evening. He will also be expected to conduct religious services on Sundays. He will live, work and play with his co-worker/students... Evening schooling will consist primarily of 'Canadianizing' immigrants, and acting as guide and mentor to unskilled workers (Shephard and Levesque⁵, 1982; Martin, 2000⁶).

Thousands of Canadians have since joined the example of Norman Bethune and have served as Frontier College labourer-teachers, tutors and mentors (or, in general, "instructors"). My objective in writing this paper was to identify the Frontier College instructors who served in logging camps in Ontario – who, when, where, which companies; and, where identified, the jobs they did in the camps and their educational backgrounds.

What were the Ontario logging camps like at that time? Adrienne Clarkson wrote⁷:

Up to 70 percent of all the workers in frontier lumber camps were illiterate. And 75 percent were unable to calculate whether they had been fairly paid. Because of their remoteness from towns or cities, the workers could not improve themselves. There was nothing to read, no alphabet to be seen anywhere in the camp at all except in the wrappings of patent medicine bottles [nor was there enough light to read by in the bunkhouses]...The harsh conditions meant that frontier labour was very difficult to come by, and so the number of immigrants was increased dramatically to fill the need for workers, growing from twenty-one thousand in 1897 to more than four hundred thousand in 1911.

Frontier College is a national non-profit literacy organization founded in 1899 that, until 1918, was called the Reading Camp Association. It focussed on using "labourer-teachers" in construction, mining, railway and logging camps as instructors to improve adult literacy and numeracy of the other workers in the camp. It since expanded to using volunteers to help adults, youth and children – largely in Indigenous communities - across Canada to improve these skills.

At the time of Bethune's 1911-1912 winter season at Martin's camp, the Reading Camp Association had already been active for 12 years under the direction of Rev. (Presbyterian) Alfred Fitzpatrick, the College's founder. Bethune is by far the best-known example of the College's labourer-teachers. Two others are Hon. Roy McMurtry, retired Chief Justice of Ontario; and Hon. David Peterson, 20th Premier of Ontario. (Infinitely less well known is my stint at Ontario Hydro's construction camp at Little Long Rapids on the Mattagami River in 1962, where I taught income tax arithmetic to co-workers.)

The data I located were broken into two periods: the years 1900-1920 (this information is found in Appendix C of founder Alfred Fitzpatrick's book⁸), and the years 1921-1970 (this is in the Frontier

(Continued from page 18)

College files in Library and Archives Canada.) Surprisingly, the records of the *earlier* period are more comprehensive, and I was able to analyze the 1900-1920 material more fully.

The first table below looks at the complete period 1900-1970.

[View the full table.](#)

Frontier College Instructors Employed in Ontario Logging Camps 1900-1970

Company	Locations ⁹	No. of instructors	Years
Victoria Harbour Lumber	Pinage Lake, Nairn	25	1900-1925
Ontario Paper	Heron Bay, Marathon, Manitouwadge	16	1938-1967
Abitibi Power & Paper	Iroquois Falls	15	1915-1966
Great Lakes Paper	Savanne, Fort William, Black Sturgeon, Dog River, Ignace, Graham	12	1946-1967
Island Lake Lumber	Chapleau	8	1958-1969
George Gordon Lumber	River Valley, Markstay	7	1903-1917
J. R. Booth Lumber	Cache Bay, Egan Estate	6	1902-1930
Austin Lumber	Nicholson, White River, Dalton Mills	6	1936-1949
Georgian Bay Lumber	Bala, Nine Mile Siding	4	1904-1912
Parry Sound Lumber	Loring, Orville, Seguin Falls	4	1903-1909
Rat Portage Lumber	Ingolf, Lake of the Woods, Kenora	4	1903-1913
Provincial Paper	Dorion	4	1937-1941
Pulpwood Supply	Longlac	4	1938-1940
Brown Forest Industries	Ramsey, Espanola	3	1967
Kalamazou Vegetable Parchment	Westree, Espanola, Jerome	3	1961-1962
Pigeon Timber	Shahagua, Black Sturgeon, Caldwell	3	1936-1940
Chenau Boom	Castleford	2	1918-1919
Conger Lumber	Parry Sound	2	1903-1905
Playfair & White Lumber	Collins Inlet, Beaverstone	2	1902-1903
Clark Timber	Nipigon	2	1937
Nipigon Lake Timber	Hogarth, Longlac	2	1937-1938
Pineland Timber	Capreol, Howard Lake	2	1945-1946
Shevlin-Clarke Lumber	Flanders	2	1937-1938
(16 other companies)		1 each	
Total (39 companies)		154	

I was able to look more closely at data for the period 1900-1920, and examined how the instructors labelled their jobs (there is undoubtedly some overlap in these labels), and the educational backgrounds of the instructors (some were university graduates; most were students).

Jobs of Frontier College Instructors in Ontario Logging Camps 1900-1920

Job	Company	Number
Lumberjack	(several)	21
Swamper	(several)	12
Watchman	Abitibi	6
Axeman	Rat Portage, VHL	3
Physician	(several)	3
Choreboy	VHL, Abitibi	3
Log sorter	Chenau Boom	2
Labourer	Rat Portage, VHL	2
Clerk	Abitibi, Waldie Bros.	2
Cableman	VHL	1
Timekeeper	Abitibi	1
Mill worker	Williams Lake	1
Music & welfare	VHL	1
Beaver	VHL	1
Interpreter	Abitibi	1
Teamster	VHL	1
Trail cutter	George Gordon	1
Woodsman	George Gordon	1

Education of Frontier College Instructors in Ontario Logging Camps 1900-1920

University	Faculty	Number
Toronto	Arts & Science	10
Toronto	Medicine	8
Queen's	Arts	7
Queen's	Medicine	2
(School teachers)		6
McMaster	Arts	4
Victoria	Arts	3
Trinity	Medicine	2

(Continued from page 20)

University	Faculty	Number
Washington	Forestry	2
Wesley	Arts	2
(England & Wales)		2
Brandon	Arts	1
Northwestern	Arts	1
Rutgers	Arts	1
St. Andrew's		1

We can infer a typical profile of a Frontier College labourer-teacher in an Ontario logging camp in the period 1900-1920:

A young man – in his 20s – studying Arts (and maybe on to Medical School) in a large university in southern Ontario, a practicing Christian, of British ancestry and sympathies, strong and physically fit, good personal hygiene, not easily discouraged or deterred by discomfort, possessing initiative and imagination, devoted to social justice and to the liberating advantages of enhanced literacy and numeracy, likely a bit left of centre politically.



Reading Room, Victoria Harbour Lumber Company camp (Photo courtesy Frontier College)

The existence and the approach of Frontier College were inspired by a number of factors. The first was Fitzpatrick's Presbyterian background with its emphasis on literacy, and on his time at Queen's

(Continued on page 22)

University where he obtained his degree in theology and was influenced by the Social Gospel movement¹². Queen's President then was George Grant (also a Presbyterian minister and also from Fitzpatrick's own Pictou County, NS); Queen's was one of the first Canadian universities to offer extension courses, beginning in the 1880s and '90s.

Fitzpatrick's church after graduation was in Nairn Centre, the closest town to the Pinage Lake logging operations of the Victoria Harbour Lumber Company, where most of the earliest labourer-teachers had their placements.

Another factor may have been the existence of Mechanics' Institutes that originated in Scotland and England in the 1820s, and spread rapidly to Australia, the US and other countries. They were often funded by local industrialists on the grounds that they would ultimately benefit from having more knowledgeable and skilled employees.

And what *are* the advantages of improved literacy and numeracy¹³? Most fundamentally, they open up one's view of the world and particularly of their own potential, including a path to future education. They provided welcome distraction from the harsh, smelly and basic life in bunkhouses¹⁴. They permit learners to write and to read letters; for immigrants, writing letters enables them to maintain links with their countries of birth. Enhanced English accelerates their progress towards citizenship of Canada, their new home. Also, for immigrants, improved English led to improved communication among workers, essential in a dangerous occupation like logging. Democracy needs citizens who are involved, informed and engaged. Literacy and numeracy enhance their value to their employers leading, as the workers age, to positions as clerks and timekeepers. If they become injured in logging operations and partly disabled, improved literacy can lead to a different occupation away from logging.

Finally, I want to recognize the lumber and paper companies for their humanity (and good business sense) for quickly appreciating, and financially supporting in some cases, the improvements in the quality of their workers' lives through enhancing their abilities to speak, read and write English, and to compute. The largest companies led the way: the Victoria Harbour Lumber Company and major paper companies, with three dozen smaller operations following close behind. They are all to be applauded.

Acknowledgements: Dr. James H. Morrison OC, Professor Emeritus of History, Saint Mary's University, Halifax, for his assistance in identifying the sources of information upon which much of this article is based, and for various suggestions that have been embedded in the text above. (Dr. Morrison was also a Frontier College labourer-teacher in 1965 in the pulpwood operations of Great Lakes Paper.) Thanks also to Michelle Fraser of Frontier College for smoothly facilitating my access to the College's history.

¹Frontier College, (nd). Norman Bethune at Frontier College. Probably Panache Lake, also spelled Panage and Pineage and Penage Lake

²Armson, Kenneth and Marjorie McLeod, (2007), *The Legacy of John Waldie and Sons: A History of the Victoria Harbour Lumber Company*, Dundurn Press

³According to Wikipedia, "Bethune served with the Communist Eighth Route Army during the Second Sino-Japanese War, which earned him enduring acclaim in China. Dr. Bethune effectively brought modern medicine to rural China and often treated sick villagers as much as wounded soldiers. His selfless commitment made a profound impression on the Chinese people, especially leader Mao Zedong. Mao wrote a eulogy to Bethune, which was memorized by generations of Chinese people. Bethune is credited for saving millions of Chinese soldiers and civilians during the Second-Sino Japanese War, and is known worldwide as one of the most influential doctors of all time."

⁴Frontier College, (nd). Norman Bethune at Frontier College

⁵Shephard, David A.E., & Andr  e Levesque, (1982). *Norman Bethune: His Times and His Legacy*. Ottawa: Canadian Public Health Association.

(Continued from page 22)

⁶Martin, Erica, (2000). Action and Advocacy: Alfred Fitzpatrick and the Early History of Frontier College. Unpublished M.A. thesis. Ontario Institute for Studies in Education at the University of Toronto.

⁷Clarkson, Adrienne, (2009). Norman Bethune. Extraordinary Canadians Series. Penguin Books

⁸Fitzpatrick, Alfred. (1923). The University in Overalls: A Plea for Part-time Study. Frontier College Press, Toronto.

⁹There may be some overlap in the names of locations.

¹⁰Mainly in Berth 83 in the Pinage/Panage Lake watershed. The logs from the area at that time would have been driven down to the north Shore of Lake Huron and mostly taken to the Waldie mill at Spragge, which Waldie had purchased from the Cooke Bros in 1906 (Armson, Kenneth. 2019. Personal communication)

¹¹Mrs. Alex Scott, J. J. McFadden's Camp, 22 miles from Whitefish in 1900-1901

¹²Radforth, Ian. 1987. Bush Workers and Bosses: Logging in Northern Ontario 1900-1980

¹³And "sciency", for that matter

¹⁴Fitzgerald and his successor as head of the College, Edmund Bradwin, were long time advocates for improved living conditions in lumber camps but to no avail; the owners resisted improvements in accommodation on economic grounds. Instead, the owners put their money into ensuring that camp food was tasty and plentiful.

Frederick Keenan, PhD, PEng was a Labourer-Teacher, Frontier College 1962; Associate Professor, Faculty of Forestry, University of Toronto 1967-1985; and Director, Forest Industries Division, Food and Agriculture Organization of the United Nations, Rome, Italy 1985-1988.

Call for Papers: Special Issue Celebrating the 50th Anniversary of the Canadian Journal of Forest Research

The Canadian Journal of Forest Research was first published in 1971; thus 2020 marks our 50th anniversary. We would like to celebrate this milestone with a Special Issue, which we are aiming to publish as the 12th (December) issue in our 50th volume. The Special Issue will include papers reflecting on the history of forest science research, how it has evolved over the years, how it has informed approaches to management of forests and forested landscapes for a diversity of ecological, economic, and social values, and the future of forest science scholarship. We particularly welcome Review papers, Discussions, and Concept Papers.

Papers should be submitted by May 15, 2020 through the ScholarOne site noting that they are for inclusion in the 50th Anniversary Special Issue. All papers will be subject to the normal peer review process.

<https://www.nrcresearchpress.com/page/cjfr/authors>

Ontario Tree Seed Plant Update

The following e-mail was received in December, 2019 regarding the status of the Ontario Tree Seed Plant in Angus, Ontario.

Hello OTSP Cultural Heritage Working Group members,

It has been some time since we worked on Conserving the Cultural Heritage of the Ontario Tree Seed Plant (OTSP)—recommendations of the OTSP Cultural Heritage (CH) Working Group. Since receiving your endorsements in July, MNRF staff have moved forward on the recommendations under Objective 1, To identify sustainable option(s) to protect the OTSP CH property, property features, building and objects, by:

- * Engaging Infrastructure Ontario (IO) in both:
- * A CH assessment of the property and buildings as per MTCS's Standards & Guidelines for Conservation of Provincial Heritage Properties (S&Gs) under the Ontario Heritage Act. The assessment is still ongoing.
- * A structural assessment of the Cone Drying Shed (CDS) #3. This assessment is now complete and identified that the structure is in good condition and could be moved to the County of Simcoe Heritage Park.
- * The majority of cultural heritage objects inventoried by the OTSP CHWG were donated to the County of Simcoe Museum, Nottawasaga Conservation Authority (for Bell's Gristmill), Mississauga Museums, Museum on the Boyne, and Grey Roots Museum and Archive. These transfers were supported by the Ministry of Government & Community Services through signed agreements.

In addition, the following activities have also taken place:

- * MNRF contracted an environmental remediation company (AGI Enviro Clean Ltd.) to remove stored materials and thoroughly clean and pest proof CDS#3. Currently, the building is storing the larger heritage objects that will be moved to the County of Simcoe Museum later when a decision is made on Cone Drying Shed # 3's relocation.
- * On October 15th, MNRF hosted a public auction at the OTSP with Kidd Auctions. The primary intent of this auction was to provide public access to the assets at the OTSP while maximizing the return to the Ontario taxpayer. It was great to see that some members of the CHWG were in attendance. As you know our earlier work at identifying and tagging cultural heritage assets at the seed plant was to ensure that there was a clear separation between the assets identified for auction from those to be set aside for protection in local and regional museums and agencies. MNRF has now turned over management of the OTSP property and buildings to IO. Their contractor, CBRE will now be managing the seed plant property and facilities, including security.

John's last day at the Angus seed plant was November 29th and he started back in his home position as the superintendent at Wasaga Beach Provincial Park on December 2nd. We are very thankful to John for all of his efforts over the past 27 months, but especially for his dedicated attention to ensure that the CH objects of the OTSP were conserved.

Finally, we had the pleasure of repatriating A.H. Richardson's canoe paddle to his niece, Wendy

(Continued on page 25)

(Continued from page 24)

Parry and her daughter, Kim. Kim's husband Grant took photos. Unfortunately, Cathy Richardson, A.H. Richardson's daughter, was unable to attend, but Wendy will be giving the paddle to her shortly.

On behalf of OTSP team in MNRF, we wish to take this opportunity to express our sincere thanks for your efforts and support in conserving the legacy of the Ontario Tree Seed Plant. We will provide another update once the CH assessment is fully completed.

John Fisher and Silvia Strobl

Chapter 1 – History – From Private Land Forests, A Public Resource, Ontario Ministry of Natural Resources, 1982

Introductory Notes by Sherry Hambly

I was unaware of this green paper until I read Ken Armson's book, *Into the Forest*¹, where he describes the development of this document on private land forests in Ontario.

As a summer student I worked with the Conservation Authorities Branch and the Maple Research Branch where I gained exposure to private lands in southern Ontario. I gained further exposure as the stand-in forester for Peterborough District during my tenure as the District Information Management Supervisor in the late '90s. My main memory of that time is helping Northumberland County draft a forest by-law and receiving irate calls from landowners about removing their rights to do what they wanted with their forests. I often wondered why Peterborough County was reluctant to implement such by-laws. Later in my career, as Operations Manager of Southern Region, I was responsible for managing the Stewardship Program for the region – which had a large focus on private land forests.

After reading *Into the Forest*, I obtained a copy of the green paper. After reading it I realized that it contained excellent information, especially in the first chapter, on the history of government approaches to private land forests in Ontario. The paper, in general, also provided me with a better understanding of the location of private land forests, as well as their ecological and economic contributions. We always think of private land forests as being located primarily in southern Ontario, but this is not the case. And generally, I don't think we appreciate their ecological and economic contributions.

I thought republishing the first chapter of the paper would be a good fit for *Forestry*. Ken Armson agreed – so here it is.

Introductory Notes by Ken Armson

I had completed my work with the initiation of the Forest Management Agreements (FMAs) on Crown forests in late 1980 and then, as Chief Forester, considered the state of Ontario's private woodlands as a major resource, poorly recognized by the public and subject to piecemeal legislation over the years. The private land programs provided by the Ministry were largely developed through the efforts of Ministry foresters and not as a result of any overall coherent government policy. Following discussion with staff and then with the Deputy Minister (Bill Foster) and the Minister (Alan Pope) I was asked to prepare a "green paper" describing the existing private land forestry programs of the Ministry and programs in other countries, followed by a series of public meetings. As a result of comments and suggestions from these meetings, the Minister, with cabinet approval, would then proceed to have a "white paper" prepared outlining a proposed government policy on private land forests.

With that intent in mind, I wrote, with the assistance of Clarence Coons, a document on private land forests in Ontario. This publication was the formal "green paper" on the state of private land forestry in the province. Following its completion, the government chose not to proceed with a "white paper" and by the beginning of the 21st century all regular private land programs, except for the Managed Forest Tax Incentive Program, had disappeared. The document is available in the Ontario Ministry of Natural Resources and Forestry library in Peterborough, as well as the City of Toronto library.

(Continued on page 27)

General Comments

The document is very comprehensive and presents very detailed information on private land forests ownership, productivity, use and programs developed by the government. The document comprises ten chapters as follows:

- History
- Ownership
- Programs
- Expenditures
- Taxation
- Associations
- Forestry and Agriculture
- Private Land Forestry in Canada
- Private Land Forests in Other Countries
- Private Land Forests in Retrospect

Ownership – an Overview

The chapter on ownership describes who owns private land forests in Ontario, their productivity and use. Approximately ten per cent of productive forest land is privately owned. Private land distribution is as follows: three million acres in the boreal forest region, seven million acres in the Great Lakes St. Lawrence forest region and 300,000 acres in the deciduous forest region.

There are three classes of ownership: individual, corporate and municipal. There are several large areas of land across Ontario owned by corporations - Algoma Central Railway in north central Ontario, Abitibi Price in northeast Ontario and the Thunder Bay area, Domtar in north central and eastern Ontario, Newaygo Timber in north central Ontario and Spruce Falls Power and Paper in northeastern Ontario. The other private land holdings in northern Ontario are concentrated in the three municipal areas of Fort Frances-Rainey River, Thunder Bay and the Clay Belt.

The report describes provincial programs developed to assist private land forestry. These programs, as of the date of publication of the document, included the following:

- nursery stock program
- woodlands improvement program
- advisory services
- managed forest tax reduction
- agreement forests

The document also includes an overview of private land forestry in other parts of Canada and the world.

As of the publication of this article in *Forestry*, the Ontario government manages and funds only one directly administered program related to private land forestry - the Managed Forest Tax Incentive Program; all other programs have been terminated. In April, 2019 the government of Ontario stopped funding Forests Ontario for the 50 million tree program, but two months later, in June, 2019, the federal Minister of Environment and Climate Change, Catherine McKenna, announced the federal government would fund the program with \$15 million over four years.

Chapter 1 on history is reproduced verbatim below.

¹Kenneth Armson, *Into the Woods, My Life in Forestry* (Toronto: Dundurn Press, 2019), 181 p.

I. AN HISTORICAL PERSPECTIVE

From the earliest days of settlement, the clearing of forests on private lands has been a major activity. Initially, clearing proceeded for the most part with little concern for conservation, shelter, erosion, or sustaining a supply of fuelwood or timber. "The forests must go to provide for man's progress," was the thought--progress in agriculture, that is.

The rapid destruction of forests continued unchecked for several decades. Overclearing for agriculture, grazing of woodlands by livestock, fire, and indiscriminate cutting for timber and fuelwood were the main causes of woodlot reduction and degradation during the 19th century. At times, wood ash or potash was one of the few items that brought a cash return to the settler.

In August 1882, many Canadians participated in the American Forestry Congress held in Montreal that followed an earlier meeting held in Cincinnati that same year. It was following this conference that R.W. Phipps of Toronto was assigned by the Ontario Government to prepare a report on the forests of Ontario. His report, the first of its kind in Canada, entitled Necessity of Preserving and Replanting Forests, was issued in 1883. In this report, Phipps discussed the problem of overclearing as follows:

the settler here, in many cases cleared much to his own injury, hill, swamp, sand and hard pan which might well have been left untouched while there was at no great distance plenty of excellent land. That poor land left in forest would have, by its climatic influence, rendered much more easy and consequently, much more lucrative, the production of crops on the other and would if fairly used, have continued an inexhaustible reserve of timber, of firewood and of fence.

Another destructive agent of private woodlands was grazing. During the 19th century, cattle and other livestock were grazed extensively on farm woodlands. Pointing out the advantages of keeping livestock out of woodlands, R.B. Fuller of Toronto wrote in the Canada Farmer, December 15, 1870:

A friend of mine John M. Ball Esq. of Niagara has not allowed his cattle or horses, or sheep, to run in his "bush" for many years past and he recently told me that thousands and thousands of young trees are growing up in his bush to the height of ten and twenty feet which will replace those trees that will be cut down when they cease growing. In this way he expects and I think with reason that his bush will be continually replenished as the seeds of the old trees strike root and send up young ones every year.

It is true, Mr. Ball loses a little pasture about the skirts of his bush but that loss is nothing to what he gains by keeping his animals out of his bush who would destroy the young shoots by browsing if he allowed them as most farmers do, the run of it.

While some farmers had made significant attempts to manage their woodlands, most had not.

Of considerable importance was the harvesting of fuelwood for domestic heating on the farm. However, heavy cutting for fuelwood often created problems.

A concerned citizen wrote in the Ontario Farmer, March 1869:

Perhaps the hardest labour the farmer has to do in winter is chopping firewood. Nearly all farmers whose land is wooded carry on an incessant warfare with timber. In fact so much has been chopped from our forests that wood is getting very scarce and dear. Should there not be some way of remedying this evil. If our woods disappear so rapidly during the next century as they have, what will the coming generations do for fuel.

In 1886, the first fuelwood survey was carried out in the province. Fuelwood production on Ontario farms had peaked in 1881 to 19 575 000 m³ (5.4 million cords). The survey was carried out because of concern over future fuelwood supplies. It indicated that in many townships fuelwood was being replaced by coal and in some townships only a ten-year supply remained. By 1910, a large number of farmers in southwestern Ontario were burning coal as a result of the unavailability of wood; in some instances all wood had been cut from their farms.

A portion of the Clerk of Forestry Report [1897] was devoted to an inquiry as to the extent of areas of woodland in the settled portion of the province. The survey indicated that 30 counties in Ontario had less than 25% of their total area under timber; the portion of woodland in one county was only 5%. The Clerk of Forestry concluded:

that throughout the greater extent of the really good and fertile agricultural region of southern Ontario where the land has been longest settled and the greatest inducements offered by natural advantages to the permanent occupation, the percentage of forest has been reduced far below that which should have been retained to ensure the perpetuation of these favourable conditions.

By 1905, when E.J. Zavitz was appointed lecturer in forestry at the Ontario Agricultural College, concern for lack of woodlands in southern Ontario had focused on two main areas. The first was the need for management of existing woodlots. The second was the reforestation of wastelands, much of which consisted of lands cleared for agriculture and abandoned.

While Zavitz made great strides in reforestation, his accomplishments in woodlot management were minimal at that time. In 1913 he reported:

The improvement in the condition of the Ontario woodlot is a most difficult problem. When we realize the difficulty in interesting the landowner in improving methods relating to annual crops from which he derives his livelihood, it can be readily understood that the woodlot, which only gives small returns with the long time element as a large factor we can realize that it will be difficult to secure radical improvements.

The improvement of woodlots seems generally to provide a greater challenge for the development of appropriate programs and incentives than does reforestation alone.

One of the earliest attempts to use the mechanism of property taxes as an incentive for woodlot improvement occurred in 1906 when the Government passed an act providing for the exemption of woodlands from taxation. The act stated that the council of any township may pass a bylaw exempting woodlands in whole or in part from municipal taxation including school rates, provided that not more than 0.4 ha in 4 ha (1 in 10 acres) of such woodlands up to a total of 10 ha (25 acres) were exempted. Later, the maximum was changed to 8 ha (20 acres), and reforested land was not assessed at a greater value by reason of tree planting. Forest landowners receiving tax exemption were not permitted to graze livestock on their woodlands.

The tax exemption program did not succeed in improving woodlots mainly because the incentive, which amounted to only a few dollars on a 4 ha (10 acre) woodlot, was inadequate. It was not until 1975 that a new property tax incentive--the Managed Forest Tax Reduction Program--was introduced.

There was also a realization that some form of extension program was needed if private woodlots were to be improved. In 1929, a forester named I.C. Marritt was appointed to develop such a program. Marritt found, especially during the early years, that woodlot owners believed a forester was only interested in reforestation by planting, and as a result there were few requests for advice from private owners regarding the management of their woodlots. He determined that the primary reason for the previous mismanagement of private woodlots was that the owners did not understand forestry principles. Therefore, he established a demonstration woodlot program in 1933 to provide examples of the results of proper forestry practices. A "Demonstration Woodlot" sign was placed on each property, usually adjacent to the road, to identify the woodlot. During the first year, 56 woodlots were chosen and at least one demonstration woodlot was

planned for each township. In addition to private woodlands, several municipalities agreed to have woodlands designated as demonstration areas.

In conjunction with the program, newspaper articles and lectures on the value of managed woodlots were given, and by March 31, 1941 a total of 428 demonstration woodlots had been set out. While no doubt the program had a significant influence on these woodlots, it was not generally effective. Extension programs not only required demonstrations but also personal contact of forestry staff with the owners.

In 1942, when it was realized that more staff were required for an extension program, the Ontario Department of Land and Forests established three forestry positions in the field. By 1951, a total of 23 foresters were doing extension work in southern Ontario.

Yet, during that same year, Marritt remarked:

The woodlot situation in Ontario is far from satisfactory, but much progress has been made in the past twenty-five years. The next ten years should mark much further advance as woodlot owners are now realizing that their woodlots need attention and there are zone foresters available to give them technical advice. It is too bad that a large percentage are in a deplorable condition, and it will take several decades to convert them into fairly satisfactory woodlots. In most cases, however, it is not as difficult as starting with bare land and reforestation.

The woodlot extension program was given increased support by the passing of the Woodlands Improvement Act in 1966, whereby a woodlot owner could place his lands under agreement for 15 years. There are now over 8000 agreements and these, together with the advisory services to woodlot owners, are the basis of the Ministry's program.

Productive woodlots can only be maintained by proper cutting practices. Clearing and overcutting for short-term gain are most damaging. In 1946, the Trees Conservation Act was passed in an attempt to protect woodlands from such clearing and overcutting. In part, this legislation was a response to concern by some counties over the clearcutting of forests on submarginal lands. The act gave the county or territorial district township councils the right to pass bylaws to restrict and regulate the cutting of trees in any part of the county or township. Enforcement of the bylaws became the responsibility of the municipality. Wellington County, in 1946, was the first county to pass a bylaw to control cutting. Twenty-two municipalities have tree-cutting bylaws at present. The Trees Act [1979] is the current legislation that restricts and regulates the destruction of trees.

The first legislation in Ontario dealing with tree planting was the Tree Planting Act [1871]. It encouraged the planting of trees along roads and gave ownership of the trees to the adjacent landowners. Apparently this act elicited little response, and in 1883 new legislation—the Ontario Tree Planting Act—was passed. The objective was, again, to encourage the planting and care of trees for purposes of shade and ornament along public highways and boundary lines between adjoining farms.

The act authorized municipalities to pay landowners up to 25¢ per tree; one half of the costs to be shared by the province. Although 75 000 trees were planted, the program was not considered successful. Nevertheless, the growth of those trees has noticeably contributed to the amenities and sylvan aspects of rural southern Ontario.

Recognition of the values of forests, tree planting, and reforestation in Ontario originated with a farm group—the Ontario Fruit Growers Association organized in 1859. Their interest in tree planting arose from the importance of forest trees in providing shelter for orchards to protect fruit trees from cold winds, and in reducing windfalls. The association was successful in encouraging the commencement of experimental tree planting at the Ontario Agricultural College in 1880. This was an important advancement in reforestation since it was the first experimental tree planting carried out by the Government of Ontario.

The farm organization responsible for the establishment of the first provincial nursery to supply landowners with forest tree planting stock was the Ontario Agricultural and Experimental Union formed in 1879 at the Ontario Agricultural College, Guelph. In 1900, a forestry committee was appointed by the Union; and at a meeting held in December 1902, it was moved by N. Monteith of Stratford and seconded by E.C. Drury of Crown Hill, that:

The Experimental Union recognizing the urgent necessity for action in the reforestation of the wastelands throughout old Ontario would recommend that the Department of Crown Lands be requested to provide material sufficient to reforest areas sufficiently large to provide forest conditions in typical situations throughout Ontario, the Union undertaking to supervise the distribution.

In 1903, the forestry committee strongly urged the Government on the necessity of two factors relating to reforestation:

- i) For undertaking the practical reforestation of areas sufficiently large to afford forest conditions as a demonstration of the utility of the work on these lands, which from their surroundings enjoy practical immunity from fire.

- ii) For collecting accurate information from the municipal authorities as to amount of lands unfit for agriculture in the settled townships of Ontario.

The resolution resulted in the hiring of Dr. Judson Clarke, in August 1904, as the first provincial forester in the Bureau of Forestry of the Crown Lands Department. Clarke, a graduate of the Ontario Agricultural College in 1896, had studied forestry at Cornell University, New York under Dr. B.E. Fernow who, in 1907, became the first dean of the Faculty of Forestry, University of Toronto.

In 1905, the Bureau of Forestry became the Bureau of Colonization and Forestry and was transferred back to the Department of Agriculture.

During the same year that Dr. Clarke was appointed, Minister of Agriculture, the Honourable John Dryden, established a forest tree nursery at the Ontario Agricultural College in Guelph and placed J. Zavitz in charge. The nursery was 0.8 ha (2 acres) in extent, and the first seedlings grown were Norway spruce, white pine, white ash, hard maple, American elm, and tulip tree.

In the fall of 1905, Zavitz was appointed a lecturer in forestry at the college. There he not only continued to develop the tree nursery, but also set up a cooperative tree planting program with farmers. In 1907, he issued the first Ontario Government publication on farm forestry that included information on reforestation. On November 8, 1912, he was transferred from the Department of Agriculture to the Department of Lands, Forests and Mines as Director of Forestry.

The first two cooperative planting projects on private lands which used 10 000 trees were completed in the spring of 1905. By 1908, the planting program had grown to 380 000 trees per year; a new provincial forest tree nursery was established at St. Williams; and some well-established plantations were growing on waste portions of farmlands. A total of 3 440 000 trees were distributed between 1905 and 1919. Shortly thereafter distribution of nursery stock to private landowners dropped to only 40 000 trees. This drop was directly related to the difficulty in securing seed during World War I.

In 1919, the United Farmers of Ontario chose E.C. Drury as their party leader. Under a coalition Government in 1920, he became Premier of Ontario. Here were two persons—Drury and Zavitz—both committed to reforestation, and both in key positions. They believed that a forestry program involving municipalities was necessary to reforest the large

wasteland areas surveyed years earlier by Zavitz. The need for facilities to supply seed and nursery stock was obvious if an enlarged program was to be initiated. As a result, the tree seed plant at Angus was opened in 1920 and two nurseries and forest stations were added in 1922. In keeping with the policy of establishing nurseries and forest stations within large wasteland areas, the nurseries were located at Midhurst and Orono.

Until 1922, the annual distribution of nursery stock to private owners had never surpassed 400 000 trees. However, as a result of the increased production of nursery stock coming from these nurseries, the distribution climbed to 5.27 million trees in 1925. In 1921 and 1923, transplant nurseries were opened at the Sand Banks in Prince Edward County and at Kemptville. The latter was fully developed as a nursery after World War II.

The Reforestation Act of 1921 gave impetus to the Agreement Forests Program which has continued to the present. In 1922, a long-awaited goal of Premier Drury and Zavitz was realized when the County of Simcoe acquired 405 ha (1000 acres) of wasteland which became Hendrie Forest, the first agreement forest in Ontario. At present, there are 58 agreement forests with counties, regional municipalities, townships, conservation authorities, the National Capital Commission, and Domtar Inc. that cover 110 025 ha (272 000 acres) of Ontario forest lands.

In retrospect, it can be seen that over the past century or so, three principal areas of public concern have emerged and been recognized through legislation and Government programs dealing with trees and woodlands. These three areas—trees for amenity values, the reforestation of wastelands, and the management of existing woodlands—have received varying support over time. Emphases on one or the others have changed, and often forestry programs have been used to resolve more than one of these concerns. To a very large degree, the programs have dealt almost exclusively with private land forests in southern Ontario. It was only after the late 1950s that there was any formal effort to direct staff and programs to the north. Even today the Ministry's programs for private land forests in northern Ontario are minimal.

It is also clear that in contrast to the immediate visible achievement realized when an area of wasteland or cleared land is reforested, the gains from improvement practices in existing woodlands are less readily perceived and can usually be measured only over a period of years. The difference between these two areas—reforestation and woodlot improvement—have often

been heightened by the fact that reforestation has been seen to be an effective control for erosion and other environmental concerns, whereas improvement cuttings in existing woodlots have not. Indeed, in more recent years improvement treatments in woodlots have been viewed negatively by some as a disturbance of the natural system.

There is every reason for a sense of achievement when the accomplishments in Ontario's private land forestry are reviewed. Yet, there is also a sense of concern for both the present and the future. It is the purpose of this paper to present a factual basis that will encourage discussions and, ultimately, decisions relating to these concerns.

Publications Related to Ontario Private Land Forests

By: Sherry Hambly

After reading the 1982 Ontario Ministry of Natural Resources green paper¹ on private land forestry prepared by Ken Armson and Clarence Coons (Chapter 1 from this document is reproduced just prior to this article in this issue of *Forestry*), I thought it would be interesting to learn what other documents are generally available on the internet on this topic. In my search I found a number of references, which are listed below (not all are available on the internet). Most references relate to southern Ontario. I found only one item that marginally discusses private land forestry in the Great Lakes – St. Lawrence forest region of the province and none of substance on the larger industrial private land forest holdings, primarily located in northern Ontario. While the green paper focused on providing a basis for thinking about government strategies for private land forests, the material below provides a broad basis of information on the cultural, social and economic factors that shaped the past and inform the future.

I did not include references related to forests owned by municipalities or Conservation Authorities, or to municipal planning, private land fire protection, or agroforestry. Nor have I, for the most part, included more general, larger references related to the history of forests and forestry in Ontario and/or Canada.

Aird, Paul. *Government Incentives and Disincentives to Private-land Forestry*. Toronto: Ontario Ministry of Natural Resources, 1980.

- not available on the internet
- indicates that the private land forests in Ontario provide a greater economic and ecological values than the proportionate area they inhabit
- provides information on, and discusses, various incentives and disincentives to private land forestry in Ontario
- provides comparisons to other parts of Canada and the world

Bacher, John. *Two Billion Trees and Counting, the Legacy of Edmund Zavitz*. Toronto: Dundurn, 2011.

<https://www.dundurn.com/books/Two-Billion-Trees-and-Counting>

- history of Edmund Zavitz's work to develop a reforestation and forest conservation program for southern Ontario

Bowley, Patricia. "Farm Forestry in Agricultural Southern Ontario, ca. 1850-1940: Evolving Strategies in the Management and Conservation of Forests, Soils and Water on Private Lands." *Scientia Canadensis* 38, no. 1 (2015): 22-49

<https://www.erudit.org/en/journals/scientia/2015-v38-n1-scientia02451/1036041ar.pdf>

- comprehensive overview of the development of agriculture on private lands in southern Ontario and the role of forests on farm properties
- describes different philosophical and practical points of view about agriculture and the value of natural resources and conservation management on farms

Boysen, Eric. *The Forests of Eastern Ontario*. Kemptville: Eastern Ontario Model Forest, Kemptville Woodlot Day, February 22, 2017, 54 p.

https://www.eomf.on.ca/media/k2/attachments/Forest_History_presentation.pdf

- provides an overview of the ecological history of forests of eastern Ontario, as well as an overview of programs to assist private forest landowners in Ontario

(Continued on page 37)

Canadian Association of Forest Owners. *Economic Importance of Canada's Privately Owned Forest Lands, Info Tech 1.* Ottawa: Canadian Association of Forest Owners, 2012, 8 p.
<http://www.cafo-acpf.ca/wp-content/uploads/2013/10/CAFO-Info-on-Canadas-Private-Forest-Lands-E1.pdf>

- provides an overview of the ecological and socio-economic contributions of forests on private lands in Canada
- private forests – small areas, big benefits

Canadian Association of Forest Owners. *Government Regulation on Private Land: The case for policy distinction and compensation when private forest land use is restricted Policy #1 – Distinction for Private Forest Land.* Ottawa: Canadian Association of Forest Owners, 2012, 2 p.

<http://www.cafo-acpf.ca/wp-content/uploads/2013/08/CAFO-Policy-Paper-on-Policy-Distinction.pdf>

- CAFO policy paper recommending a distinction between public and private lands regarding approaches to laws and policies
- recommends fair compensation to private landowners as a result of restrictions imposed on land use and productivity in the pursuit of public policy objectives

Coons, Clarence. *Review of Forestry Legislation, Policy and Forest Management Guidelines and the Current Status of Provincial Forest Legislation and Policy with Reference to Eastern Ontario, Information Report No. 22.* Kemptville: Eastern Ontario Model Forest, 1996, 112 p.

<https://issuu.com/vincemurphy/docs/ir22>

- a comprehensive overview of forest legislation, policy and guidelines as they pertain to eastern Ontario (and thus other areas of private lands in Ontario)

Denys, Alec J. "New directions - Ontario's private land forestry program." *Forestry Chronicle* 70, no. 2 (1994): 140-142.

<https://pubs.cif-afc.org/doi/pdf/10.5558/tfc70140-2>

- brief description of private forest lands in Ontario
- overview of past legislation/programs related to private forest land management
- overview of Ontario's suggested new direction regarding private forest lands under the Sustainable Development Initiative

Diamantakos, Diamando. "Private Property Deforestation and Regeneration and the Clerk of Forestry in Nineteenth-Century Ontario." *Scientia Canadensis* 21 (1997): 29-48.

<https://www.erudit.org/en/journals/scientia/2005-v28-scientia3122/800402ar/>

- explores the effectiveness of forest legislation on forest management in Essex County
- concludes that the success of the legislation was limited by the continuing priority attached to private property rights, doubts concerning the relationship between forest loss, climate, and productivity, and a long-standing antagonism towards nature and forests.

Diamantakos, Diamando. "Reconstructing nature: Issues pertaining to nineteenth century upper Canadian private property deforestation and regeneration" (Ontario)." Master Thesis, University of Windsor, 1996, 160 pp.

<https://scholar.uwindsor.ca/etd/3282/>

- explores how the landscape is affected by cultural forces
- explores the impact of provincial forestry legislation on municipal tree planting programs using Essex County as an example

Drescher, Michael, Graham B. Epstein, G. Keith Warriner and Rebecca C. Rooney. “An investigation of the effects of conservation incentive programs on management of invasive species by private landowners.” *Conservation Science and Practice* 1, no. 7 (2019) 15 p.

<https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.56>

- reviews the role of conservation incentive programs that target private lands to reduce invasive species

Dunkin, Jessica. “A Forest for the Trees: Deforestation and Conservation Efforts in Northumberland County, Ontario 1870-1925.” *The International Journal of Regional and Local Studies* 8, no. 1 (2008), 47-70.

<https://www.tandfonline.com/doi/abs/10.1179/jrl.2008.4.1.47?tab=permissions&scroll=top>

- chronicles the evolution of forest conservation theory and practice in Ontario from the 1870s until the early twentieth century using Northumberland County as an example
- reviews who was responsible for what and how the valuation of forests shaped the legislation

Elliott, Ken A. “The Forests of Southern Ontario.” *The Forestry Chronicle* 74, no. 6 (1998): 850-854.

<https://pubs.cif-ifc.org/doi/pdf/10.5558/tfc74850-6>

- provides an overview of the ecological, economic and legislative history related to forests in southern Ontario

Environmental Commissioner of Ontario. “Chapter 2: Southern Ontario's Disappearing Forests.” in *2018 Environmental Protection Report, Back to Basics, Volume 4, Southern Ontario's Wetlands and Forests*. Toronto: Environment Commissioner of Ontario, 2018.

<http://www.auditor.on.ca/en/content/reporttopics/envreports/env18/Back-to-Basics.pdf>

- discusses forest loss in southern Ontario and reasons why including lack of government policy and support for private land forests
- provides an overview of the history of legislative and policy actions related to private land forests
- discusses the conflict between agriculture and forests

FitzGibbon, John and Sylvia Summers. *Report on Tree Conservation By-Laws in Southern Ontario*. Guelph: School of Rural Planning and Development University of Guelph, 2002.

<https://cvc.ca/wp-content/uploads/2015/03/Tree-Conservation-By-Laws-in-Southern-Ontario.pdf>

- reviews by-laws in managing forest cutting at the municipal level

Holmes, Elizabeth, Henry Lickers and Brian Barkley. “A critical assessment of ten years of on-the-ground sustainable forestry in eastern Ontario's settled landscape.” *Forestry Chronicle* 78, no 5 (2002): 643-647

<https://www.eomf.on.ca/media/k2/attachments/>

[A critical assessment of ten years of on the ground sustainable forestry.pdf](#)

- describes the approach of using the model forest concept for developing sustainability of private land forests

Keen, Rob. *The Challenge of Increasing Forest Cover in Southern Ontario*. Latonell Conservation Symposium, 2008.

http://www.latonell.ca/wp-content/uploads/files/presentations/2008/2008_T2C_Rob_Keen.pdf

- describes the reasons for loss of forest cover in southern Ontario and the role of Trees Ontario and the Fifty Million Tree Program to enhance forest cover

Kelly, Kenneth. "Damaged and Efficient Landscapes in Rural and Southern Ontario, 1880-1900." *Ontario History* 66, no. 1 (1974): 1-14.

-not available on the internet but cited frequently in other papers

Kelly, Kenneth. "The Changing Attitude of Farmers to Forest in Nineteenth Century Ontario." *Ontario Geography* 8 (1974): 64-77.

-not available on the internet but cited frequently in other papers

Kuhlberg, Mark. "Ontario's nascent environmentalists: Seeing the foresters for the trees in southern Ontario, 1919-1929." *The Forestry Chronicle* 74, no. 4 (1998): 533-540.

<https://pubs.cif-ifc.org/doi/pdf/10.5558/tfc74533-4>

-provides a detailed review of the issues faced by early Ontario forestry staff in developing a reforestation program in southern Ontario

-excellent list of references including the broader historical view of forestry in Canada

Lambert, Richard S. with Paul Pross. *Renewing Nature's Wealth: A Centennial History of the Public Management of Lands, Forests & Wildlife in Ontario, 1763–1967*. Toronto: Ontario Department of Lands and Forests, 1967.

-not available on the internet but cited frequently in other papers

-history of forestry in Ontario up to 1967

McQuarrie, Jonathon. "Tobacco has Blossomed like the Rose in the Desert": Technology, Trees, and Tobacco in the Norfolk Sand Plain, c. 1920-1940." *Journal of the Canadian Historical Association* 25, No. 1 (2014): 33-62.

<https://id.erudit.org/iderudit/1032798ar>

-discusses the introduction to tobacco farming in Norfolk County and the positive and negative interactions it posed with forests and reforestation

Ontario Environmental Farm Plan Website

<https://www.ontariosoilcrop.org/oscia-programs/workshops-webinars/environmental-farm-plan/>

-describes a program to improve sustainability of farms including farm forests

Ontario Professional Foresters Association. *Forestry Practice on Private Lands in Ontario, Practice Guidance*. Toronto: Ontario Professional Foresters Association, 2018.

<https://opfa.ca/wp-content/uploads/2018/07/Practice-Guidance-Forestry-Practice-Private-Lands-Approved-2018-07-08.pdf>

-practice guidance for members of the OPFA in relation to management of forests on private lands

Ontario Woodlot Association Website – Publications

<https://www.ontariowoodlot.com/publications-and-links>

-articles on the history of the forests of eastern Ontario and forest by-laws and their effect

Parson, Helen, E. "Reforestation in Agricultural Lands in Southern Ontario Before 1931." *Ontario History* 86, no. 3 (1994): 237-248.

-not available on the internet but cited frequently in other papers

Puttock, Dave. *Critical Review of Historical and Current Tree Planting Programs on Private Lands in Ontario*. Toronto: Ontario Ministry of Natural Resources, 2001.

-not available on the internet but cited frequently in other papers

Reid, Ron. *Practical Options for the Greening of Carolinian Canada.* The Carolinian Canada Coalition, 2002.

https://caroliniancanada.ca/legacy/practical_options_greening_full.htm

- describes the history of conservation in Carolinian Canada
- discusses various incentives to strengthen conservation on private land

Schwan, Terry, Al Mussell and Steve Bowers. *Building a Case for Good Forest Management.* Ontario and the George Morris Centre, 2013.

<https://www.forestsonario.ca/wp-content/uploads/2016/01/>

[Building a Case for Good Forest Management summary.pdf](#)

- presents several case studies as a basis for understanding how to improve responsible management of privately owned forests in southern Ontario

Smyth, J.H. and I.A. Nauseda. *Rural Lands and Landowners of Ontario: A Private Land Forestry Perspective.* Ottawa/Toronto: Environment Canada, Canadian Forestry Service, and Ontario Ministry of Natural Resource, 1982.

<https://cfs.nrcan.gc.ca/publications?id=38522>

- provides an overview of the characteristics of rural lands and landowners

Watson, Andrew. *Poor Soils and Rich Folks: Household Economies and Sustainability in Muskoka, 1850-1920.* Phd diss., York University, 2014. [https://yorkspace.library.yorku.ca/xmlui/bitstream/handle/10315/28165/Watson Andrew 2014 PhD.pdf?sequence=2](https://yorkspace.library.yorku.ca/xmlui/bitstream/handle/10315/28165/Watson_Andrew_2014_PhD.pdf?sequence=2)

[handle/10315/28165/Watson Andrew 2014 PhD.pdf?sequence=2](#)

- comprehensive overview of settlement in central Ontario
- part of this thesis discusses the role of forests and how they were viewed and used by settlers and industry
- there is some discussion of pertinent legislation related to forests

Zavitz, E.J. *Report on the Reforestation of Wastelands in Southern Ontario.* Toronto: King's Printer 1909.

Zavitz, Edmund. *Fifty Years of Reforestation in Ontario.* Toronto: Ontario Department of Lands and Forests, 1959.

Zavitz, Edmund. *Recollections.* Ontario, Department of Lands and Forests, 1966.

- not available on the internet but cited frequently in other papers
- these three documents describe Zavitz's work and the outcomes related to establishing a government reforestation program, primarily in southern Ontario

¹Ontario Ministry of Natural Resources, *Private Land Forests – A Public Resource* (Toronto: Ontario Ministry of Natural Resources, 1982), 161 p.

From the Publisher

INTO THE WOODS — MY LIFE IN FORESTRY —



An insider's look at the laying of the foundations of modern forestry in Canada.

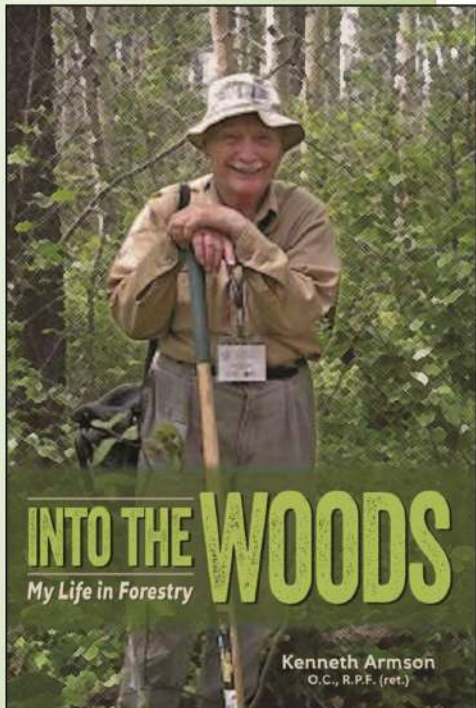
At the age of seventeen Ken Armson began his career in forestry felling trees in a British conifer plantation.

Thus began the remarkable career of a man who played a seminal role in the development of sustainable forest management in Canada, in particular, Ontario.

He was instrumental in the development of key practices and policies on both public and private forest lands.

Tireless, persuasive, perennially curious, Ken Armson became an energetic advocate for practical mechanisms to improve the transfer of knowledge and innovative practices to forest practitioners.

His lifelong fascination with the evolution of forest management practices, their ecological impacts, and the social, economic and political contexts from which they emerged has made for a rich and rewarding life, for Mr. Armson and for all of us.



Format: 6" X 9" | 194 pages

INTO THE WOODS

\$25.00*

ISBN: 978-1-77257-256-8 (PB)
ISBN: 978-1-77257-257-5 (eBook)

Order Options

Online: www.burnstownpublishing.com

By Telephone: 1.613.432.0379

By Mail: 5 Leckie Lane, Burnstown, ON K0J 1G0 (use form below)

Name: _____

Address: _____

Prov.: _____ Postal Code: _____

Phone#: (____) _____

**For total cost of your book(s), including taxes and shipping, plus more details please visit our website.*

Quantity: _____ | *Total: \$ _____

Credit Card: Visa ☐ Master Card ☐

Card#: _____

Exp. Date: _____ CSC #: _____

Signature: _____

Book Review

By: Malcolm F. Squires R.P.F. (Ret.)

Into the Woods: My Life in Forestry

Kenneth Armson, O.C., R.P.F (Ret.), 2019. ISBN: 978-1-77257-256-8 (PB) Burnstown Publishing House, Burnstown, ON CA \$25.00 + Shipping. Contact www.burnstownpublishing.com

Ken's *Life in Forestry* is a behind-the-scenes revelation of the difficulties one forestry innovator has faced in Canada, and more particularly, in Ontario. Over the past four decades Ontario has step-by-step become a world leader in responsible forest management. Ken Armson deserves a lion's share of the credit for that achievement as he assertively declared what needed to be done, how it should be done, and who should do it. He didn't accept bureaucratic, and political foot dragging. No, he applied his skills where he knew they could make people move. And, thankfully, eventually they did move.

Ken takes us through his early life in Ontario, and from eleven years old in England, from where he later joined the Canadian Army. He served during the latter part of WWII, and part of the post-war occupation in Germany. He received his discharge in Canada in October 1946 and began his forestry studies at the University of Toronto in 1947, from where he graduated in 1951. He later studied at Oxford for a Diploma in forest soils. The remainder of the book follows Ken's romp over 65-years of Canadian forestry education, policy, practice, and history, as he leads us back and forth around North America, focused on Canada and Ontario. Numerous personalities in academia, government, industry, and private practice are discussed, and given generous credit for their impact on his forestry knowledge and successful career.

The sections that I found most illuminating were those in which he covers periods and events in which I had some involvement, specifically in Newfoundland, New Brunswick, and latterly Ontario 1976-2005. As an example, I worked opposite Ken in Ontario during his final negotiation of Forest Management Agreements with forest industry 1978-80. Until I read this book, I was ignorant of the long period he had been advocating for such agreements as the vehicle to advance Ontario forestry from an administrative exercise to a significant degree of forest management. He takes us through the long, on-and-off, government actions to make such agreements possible. To get government support he also had to achieve acceptance among a diverse group of forest-industry companies. We get a step-by-step, personality-by-personality tour as Ken butts his head against apparently impenetrable obstacles and wonder at his stamina.

Most readers will be fascinated with the backgrounds that they were previously unfamiliar with behind their own experiences. Those experiences will include: studying at the University of Toronto, early undergraduate work, location transfers, container seedling production, silviculture practices, civil service work, frustrations with forest policy and bureaucracy, forestry research, and the list continues.

I urge all wannabe, practicing, and retired foresters to get and read this fascinating story of the life of one of Canada's most influential foresters. You will see yourself, either by name, or example, but you will also get a better appreciation for how the work of others is shaping, or has shaped, the framework for your own career.

Book Review

By: By: Ken Armson, R.P.F. (Ret.)

Addendum to PINUS STROBUS, published in May, 2017: A Compendium of Vessels moving Lumber from Mills along the North Channel and Georgian Bay, 1850--1930's A Chronology. By Roger Miller and Fred Holmes. December 2019. P. 120 + illus. ISBN 978-0-9736111-2-0

As noted, this is an addendum to the authors' publication PINUS STROBUS which was reviewed in *FORESTORY* Vol.. 8, No.2, 2017. This addendum documents the results of the authors' research into the shipments and marine vessels involved in transporting lumber and other wood products from the mills listed in PINUS STROBUS plus an additional eight locations in the North Channel and Georgian Bay areas. It is a valuable addition in providing the names of the vessels involved, their destinations and in many instances the nature of the wood product, mainly lumber, and the actual amount being carried. In the addendum there are more than 40 photos of schooners, tugs and barges that were used to transport the products of these Ontario mills to their markets, almost exclusively in the United States' ports on the Great Lakes. The authors have distributed this Addendum to all the recipients of PINUS STROBUS. The listing of these recipients, primarily libraries and other public institutions in the municipalities surrounding the North Channel and Georgian Bay area, are in the review of PINUS STROBUS mentioned above, available on the Society's website: www.ontarioforesthistory.ca

Sylva Recap

The Ontario Department of Lands and Forests published for many years a journal titled "Sylva". The purpose of this journal was to highlight changes in policy, ecology facts, information about the activities of the Department, contributions of individuals and the comings and goings of staff. "Sylva" contains nuggets of Ontario forest history. One "nugget" from "Sylva" will be selected for each edition of the Journal. The following was provided by Sherry Hambly.

Wildlife Management - A Form of Land Use by C.O. Bartlett Reprinted from Sylva Volume 10 (3): 26-29, 1949



R.D. ROBINSON Here a Department Biologist checks a pair of pheasants for technical data. Without the food and cover provided by wooded areas and shrubby fencerows, "farm game" could not exist.

Wildlife - like corn, beans, and apples - is a product of the soil. Large flesh-eating animals eat smaller ones and birds and insects, and these, in turn, consume plants for food. Wildlife management involves the manipulation of the land to produce a crop of wildlife and is therefore, included with agriculture and forestry, a form of land use.

Agriculturists know that, depending on its carrying capacity, a given area of land will yield only so many bushels of corn or support so many head of cattle. The same is true of wildlife. We can increase the yield of wildlife - in the same manner as we increase the yield of corn - by increasing the carrying capacity of the land by land manipulation. this changing of the landscape to increase the crop of wildlife is known as habitat improvement.

As the lands of south-western Ontario were gradually cleared for agriculture, a number of animals associated with the forest disappeared, but their places were soon taken by animal species adapted to life in agricultural country. To-day, we classify pheasants, Hungarian partridge, cottontail rabbits, European hare, raccoon, groundhogs, foxes and squirrels as "farm game",

because study has shown that these animals reach their highest densities on the fertile soils. Man - who for decades has been clearing the land and improving soil fertility - has unwittingly provided much habitat for "farm game".

An axiom of farm game management is that "good farm practices are good wildlife practices. In so far as this means "good soil building", it is true. The farmer who, by various methods, increases the fertility of his soil and controls erosion by strip cropping, cover crops and forestation, is doing much for game.

Not all present-day farming practices, however, are beneficial to wildlife. More intensive cultivation and increased mechanization of farms are trends which are viewed with some concern by wildlife managers. Intensive cultivation which includes removal of shrubby fencerows and roadside plants that provide both food and cover for wildlife is detrimental. Any number of farming practices can, in fact, be both detrimental and beneficial and make it difficult to appraise their over-all value to wildlife. The mechanical corn-pickers and high-cutting combines, for instance, favour game birds by providing both food and cover, but, on the other hand, the fast-moving machines can destroy a large

(Continued on page 45)

(Continued from page 44)

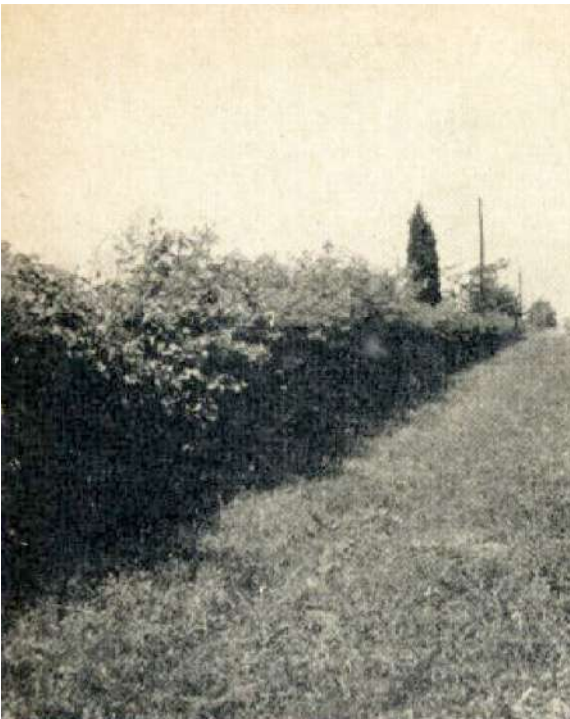


PHOTO BY AUTHOR Fencerows of this nature encourage the presence of many beneficial forms of wildlife.

number of birds and animals annually.

In south-western Ontario, we are geared to an agricultural economy. Soil manipulation to improve wildlife conditions much, therefore, harmonize with agricultural practices. In short, we must raise our wildlife on privately owned farms remembering that the farm economy comes first. Yet there is no reason why - if we maintain a proper balance between farm game and other farm products - the two practices should conflict.

We already have good examples of situations where farm game management and agricultural practices harmonize to produce more substantial returns to the landowner. In 1950, on Pelee Island, where a well-controlled pheasant harvest is an annual event, the farmers realized some \$7,00 per acre from pheasant hunting alone. In Ohio, a well-developed agriculture State, a study of the economic value of crop field borders showed that the value derived from shrub fencerows - by harbouring wildlife beneficial to farm crops - in some cases outweighed the values derived from corresponding extra planting spaces made available alongside clean or sod fencerows.

In agricultural areas in which wildlife populations are not controlled by a regular harvest of surplus animals, damage to crops may occur and wildlife become a liability. The same is true, of course, where farmers realize little or no value from their efforts to retain wildlife on their farms. Regulations to permit the harvesting of wildlife crop, along with good farmer-sportsman relations, are prerequisites to any game habitat improvement programme.



< QUIMBY HESS >

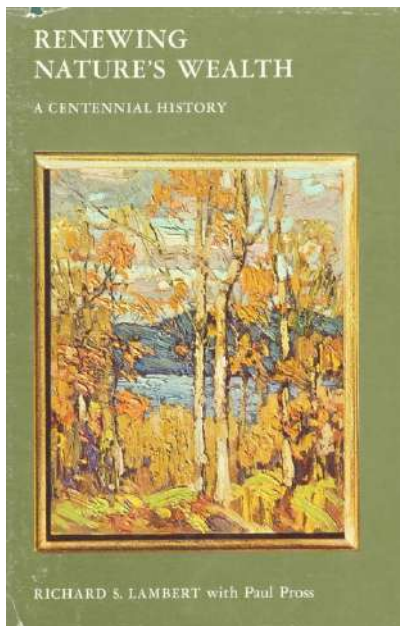
The baby chipmunk (left) and setting grouse (right) were photographed in an agricultural area balanced to accommodate wildlife.



Wildlife, and its economic and recreational use, cannot be excluded from any conservation programme in agricultural lands, though finding the correct balance between wildlife use and the agricultural use of land may not always be simple. The answers may come easier, however, if land-use specialists undertake land manipulation with the multiple-use concept. Properly planned improvements of hedgerows, woodlots and odd field corners, and the construction of small water

(Continued on page 47)

Renewing Nature's Wealth



(Lambert, Richard S. and Paul Pross. Toronto: The Ontario Department of Lands and Forests. 1967). The book cover describes this book as: “*Renewing Nature's Wealth*, the exciting story of Ontario's natural resources, is described by Premier John Robarts, in his Foreword to the book, as “much more than a history of one of the Departments of the Government of the Province of Ontario: it is a vital component of the history of Ontario”, reaching back nearly 200 years to the days of the first surveyor General of Upper Canada in 1794. The book describes the impact made by a civilized people upon the primitive forest that originally covered the land, and the development of its natural resources under public administration from an early state of confusion and waste down to the modern era of conservation and scientific management.”

We will provide a précis of one chapter of this book in each edition of the journal.

Chapter 20: Modern Planning and Management of Public Land

The period from the mid forties to the mid sixties saw a move to a more rational basis of land disposition and management. Prior to this period land disposition was primarily focused on settlement needs. The 1941 Report of the Select Committee on the Administration of the Department of Lands and Forests was a catalyst for the understanding that land and natural resources could have multiple uses, not just for settlement or extraction, and that these uses needed to be planned for.

Administration of the lands program was consolidated at Head Office and decentralized to the districts. A thorough program review resulted in changes to land disposition for resorts, the ending of free land grants except for veterans, more stringent rules for agricultural use, streamlining of special permits and the patent land process. As well, there was a recognition that science-based land surveys were needed, and that changes to life styles (automobiles) would lead to greater demand for land for recreation.

The idea of land use planning began during World War II, spurred on by the rise of the idea of conservation. The 1944 Ganaraska Report and the 1950 Report of the Select Committee on Conservation both stressed land use planning that had a scientific basis and was based on ecological sustainability and productivity classification for different uses.

The 1947 Royal Commission on Forestry (Kennedy Report) also stressed the need for land classification and planning.

Quimby Hess, the district forester for Kapuskasing, was the first forester to use these principles during the development of the local forest management plan. His ideas were supported by the 1960 Glackmeyer Report, which was created to review and provide guidance on integrating farm/forestry programs and needs in the Clay Belt.

Eventually every district was required to develop a Land Use Plan. A new Land Use Planning Section developed legislation, regulations, policy and manuals/guides for this initiative. One of the

(Continued on page 47)

(Continued from page 46)

key components of the land use plans in each district was the development of a chapter on the local history of land and natural resource management.

Tweed District was the first district to create a land use plan, partly to test the process in southern Ontario, which faced different issues than northern Ontario. The Tweed area dealt with abandoned agricultural land, high recreational needs from large population centres and degraded forest lands needing rehabilitation.

The new focus on land use planning led to better cooperation between forestry and agriculture departments. The Private Lands Commission was created in 1959 to formalize this cooperation. The Commission engaged Guelph University to produce soil surveys for all of southern Ontario.

The federal government enacted ARDA (Agricultural Rehabilitation and Development Act) in 1961 to encourage productivity surveys (Canada Land Inventory) of rural lands and support projects to rehabilitate them.

(Continued from page 45)

impoundments, have improved farms as well as conditions for farm wildlife.

Wildlife management as a form of land-use is well established in south-western Ontario. The increasing demand for outdoor recreation has placed particular emphasis on farm game. Whether we will continue to provide recreation for our increasing human population will depend - in agricultural country - on the farmer and his attitude toward wildlife.

Land-use specialists who recommend land-use practices with the multiple-use concept, are improving conditions for agriculture, forestry and wildlife, and at the same time promoting the conservation and wise use of these resources.

Forest History Society of Ontario

Membership Form

Thank You For Your Support!

<p>The mission of the Society is:</p> <p>“To further the knowledge, understanding and preservation of Ontario’s forest history” and to accomplish this with the following objectives:</p> <p>To preserve forest and forest conservation history;</p> <p>To encourage and further the development and recognition of forest history;</p> <p>To support research and studies of forest history;</p> <p>To support the archival preservation of records and materials relating to forest history, and</p> <p>To promote the better understanding of forest history through public education.</p>		<p>The Society has two ongoing projects, both available on our website:</p> <p>www.ontarioforesthistor.ca</p> <p>The first is a catalogue of publications dealing with all aspects of Ontario’s forest history. Members can submit contributions on our website.</p> <p>The second is the identification and listing of collections and materials relating to Ontario’s forest history. The Society works with established archives such as the Archives of Ontario and several university archives to facilitate the preservation of significant collections.</p> <p>The Society publishes a newsletter, Forestry, twice a year – Spring and Fall - containing informative articles on Ontario forest history.</p>
---	---	--

(The FHSO has a privacy policy. Your information will not be shared or sold.)

You can initiate or renew your membership online by clicking on the link below:

<http://www.ontarioforesthistor.ca/index.php/membership>

Or, by filling out and submitting the form below, with your cheque, to the address listed below:

Name					
Address					
City		Province		Postal Code	
Phone		Email			

Membership Type – Please Check One	Please Make Cheque Payable To:
<input type="checkbox"/> FHSO Annual Membership - \$45.00	Forest History Society of Ontario 144 Front Street West, Suite 700 Toronto ON M5J 2L7
<input type="checkbox"/> FHSO Student Membership - \$15.00	
<input type="checkbox"/> FHSO Institution/Corporate Membership - \$100.00	
<input type="checkbox"/> FHSO Membership for OFA / OWA / OHS Members - \$30.00	